

DRILL HOLES

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### PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF US 40 AND THE ENTRANCE TO WAL-MART IN HARFORD COUNTY. THE WORK IS NECESSITATED BY THE WIDENING OF A NORTH LEG OF THE INTERSECTION. US 40 IS ASSUMED TO RUN IN A EAST-WEST DIRECTION.

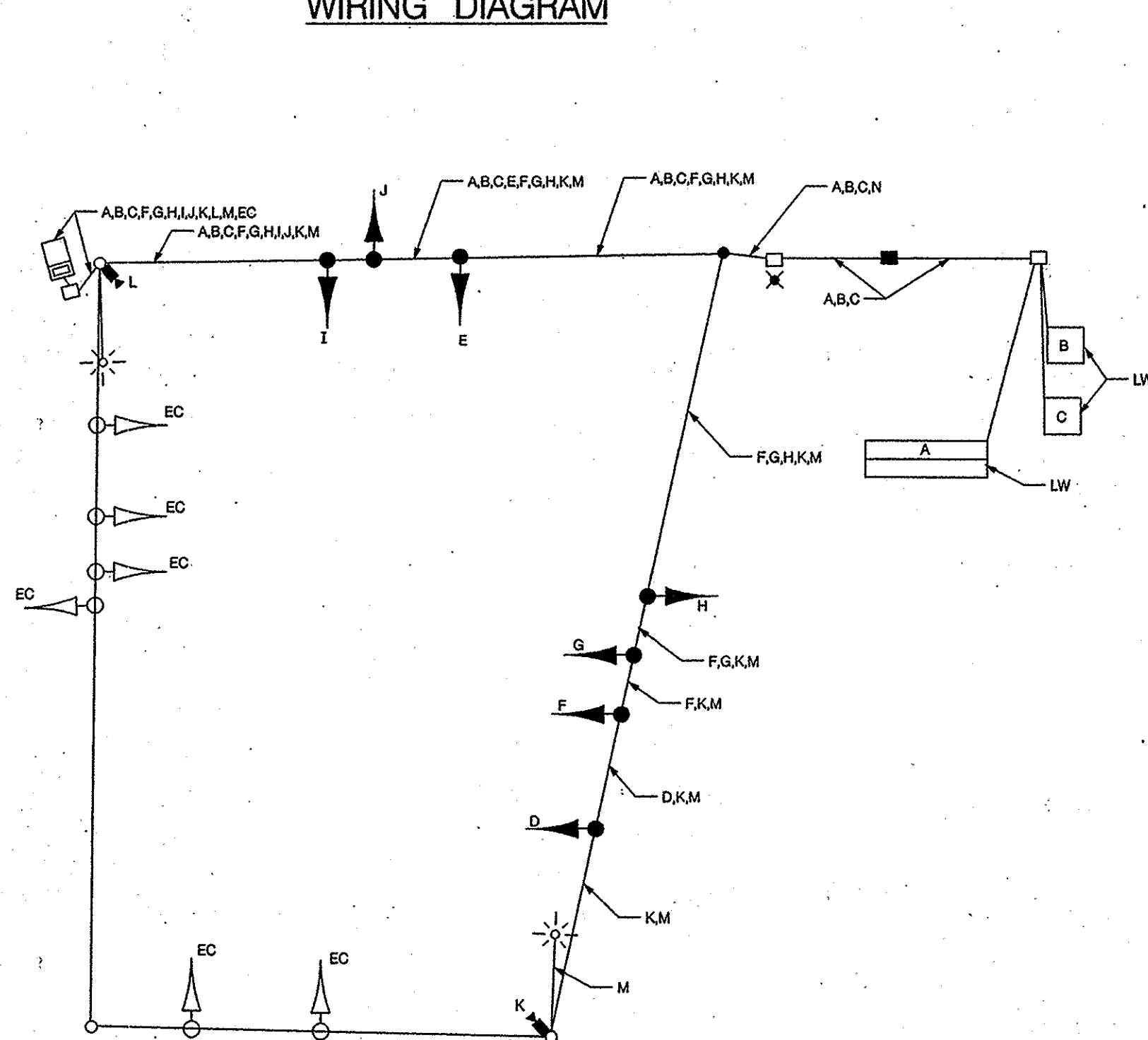
### INTERSECTION OPERATION

THE INTERSECTION CURRENTLY OPERATES IN A NEMA SIX-PHASE, FULLY-ACTUATED MODE WITH A EXCLUSIVE LEFT TURN PHASES FOR US 40. THIS OPERATION WILL NOT CHANGE.

### CONTROLLER REQUIREMENTS

THE EXISTING EIGHT-PHASE, FULLY-ACTUATED CONTROLLER HOUSED IN A NEMA "6" BASE MOUNTED CABINET WILL BE USED.

### WIRING DIAGRAM



### WIRING KEY

A-C	2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) ALUMINUM SHIELDED
D-E	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
F-J	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
K-L	VIDEO DETECTION CABLE
M	2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.) TRAY CABLE
N	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
ELW	EXISTING LOOP WIRE (NO. 14 A.W.G.)
X	GROUND ROD
EC	EXISTING CABLE

### EQUIPMENT LIST "A"

A. EQUIPMENT TO BE FURNISHED BY THE SHA AND INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

### EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR. ALL EQUIPMENT SHALL HAVE CATALOG CUTS SUBMITTED TO THE OFFICE OF TRAFFIC AND SAFETY FOR APPROVAL PRIOR TO INSTALLATION.

QUANTITY	DESCRIPTION
LS	MAINTENANCE OF TRAFFIC
1 CY	TEST PIT EXCAVATION
20 LF	FURNISH AND INSTALL 24 IN. WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING
1 EA	FURNISH AND INSTALL 100 FT. VIDEO DETECTION CABLE
1 EA	FURNISH AND INSTALL 300 FT. VIDEO DETECTION CABLE
2 EA	ADJUST EXISTING HANDHOLE TO FINAL GRADE
1 EA	FURNISH AND INSTALL 14 IN. X 32 FT. STRAIN POLE
18 EA	FURNISH AND INSTALL 12 IN. VEHICULAR SIGNAL HEAD SECTION
3 EA	FURNISH AND INSTALL 8 IN. VEHICULAR SIGNAL HEAD SECTION
LS	REMOVE AND DISPOSE OF EXISTING EQUIPMENT
2 EA	FURNISH AND INSTALL VIDEO DETECTION CAMERA
1 EA	FURNISH AND INSTALL VIDEO INTERFACE EQUIPMENT
390 LF	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED
5 CY	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
10 LF	FURNISH AND INSTALL NO. 6 AWG STRANDED BARE COPPER WIRE
1 EA	FURNISH AND INSTALL GROUND ROD 3/4 IN. DIAMETER X 10 FT. LENGTH
60 LF	FURNISH AND INSTALL ELECTRICAL CABLE 5-CONDUCTOR (NO. 14 A.W.G.)
1000 LF	FURNISH AND INSTALL ELECTRICAL CABLE 7-CONDUCTOR (NO. 14 A.W.G.)
270 EA	FURNISH AND INSTALL STEEL SPAN WIRE (3/8 IN. DIAMETER)
1 EA	FURNISH AND INSTALL R10-5 SIGN (18" X 24") - SPAN WIRE MOUNT
2 EA	FURNISH AND INSTALL R8-5L SIGN (30" X 36") - SPAN WIRE MOUNT
1 EA	FURNISH AND INSTALL R10-12(2) SIGN (36" X 42") - SPAN WIRE MOUNT
310 LF	FURNISH AND INSTALL 2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.) TRAY CABLE
1850 LF	FURNISH AND INSTALL 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) ALUMINUM SHIELDED
1 EA	FURNISH AND INSTALL HANDHOLE
1 EA	FURNISH AND INSTALL 3 IN. WEATHERHEAD

### EQUIPMENT LIST "C"

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076. THE CONTRACTOR SHALL NOTIFY THE SHA AT (410) 787-7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY.

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

ALL SIGNAL EQUIPMENT TO BE REMOVED AND NOT RETURNED TO THE SHA SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

### CONTACT PERSONS FOR DISTRICT 4 ARE AS FOLLOWS:

MR. RANDALL SCOTT  
ASSISTANT DISTRICT ENGINEER - TRAFFIC  
(410) 321-2781

MR. STEVE MARCISZEWSKI  
ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
(410) 321-2761

MR. MIKE PASQUARIELLO  
ASSISTANT DISTRICT ENGINEER - UTILITIES  
(410) 321-2845

### CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF, SR.  
CHIEF, TRAFFIC OPERATIONS  
(410) 787-7630

MR. EUGENE BAILEY  
TEAM LEADER SIGN OPERATIONS  
(410) 787-7676

MR. ROBERT SNYDER  
ASSISTANT DIVISION CHIEF,  
TRAFFIC OPERATIONS  
(410) 787-7631

MS. DARLENE EIDE  
SUPPLY OFFICE  
SIGNAL SHOP WAREHOUSE  
(410) 787-7668

MR. ED RODENHIZER  
TEAM LEADER SIGNAL OPERATIONS  
(410) 787-7652

### PHASING CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13
	(R)	(Y)	(G)	(Y)	(G)	(Y)	(R)	(Y)	(G)	(Y)	(R)	(Y)	(G)
PHASE 1 & 5	←G	←G	R	R	←G	←G	R	R	R	R	R	R	R
1 & 5 CHANGE	←G	←G	R	R	←G	←G	R	R	R	R	R	R	R
PHASE 1 & 6	←G	←G	G	G	R	R	R	R	R	R	R	R	R
1 & 6 CHANGE	←Y	←Y	G	G	R	R	R	R	R	R	R	R	R
PHASE 2 & 5	R	R	R	R	←G	←G	G	G	R	R	R	R	R
2 & 5 CHANGE	R	R	R	R	←Y	←Y	G	G	R	R	R	R	R
PHASE 2 & 6	R	R	G	G	R	R	G	G	R	R	R	R	R
2 & 6 CHANGE	R	R	Y	Y	R	R	Y	Y	R	R	R	R	R
PHASE 4 & 8	R	R	R	R	R	R	R	R	G	G	G	G	R
4 & 8 CHANGE	R	R	R	R	R	R	R	R	Y	Y	Y	Y	R
FLASHING OPERATION	FLR	FLR	FLY	FLY	FLR	FLR	FLY	FLY	FLR	FLR	FLR	FLR	FLR

**TRAFFIC CONCEPTS, INC.**  
325 Gambrills Road  
Suite E  
Gambrills, MD 21054  
(410) 923-7101  
FAX (410) 923-6473  
EMAIL TRAFFIC.CONCEPTS@COMCAST.NET

<b>SHA</b> STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF TRAFFIC & SAFETY TRAFFIC ENGINEERING DESIGN DIVISION	
GENERAL INFORMATION PLAN US 40 AND WAL-MART /HAPPY HARRY'S ENTRANCE	
SCALE NONE	DATE 6-25-06
CONTRACT NO. BW99GM82	
DESIGNED BY T. ZAYDEL	COUNTY HARFORD
DRAWN BY T. ZAYDEL	LOGMILE 12040011.84
CHECKED BY K. SCHMID	T.I.M.S. NO. H 570
F.A.P. NO. NA	TOD NO.
DRAWING NO. TS-3239GI B	SHEET NO. 2 OF 2